AUTHOR INDEX TO VOLUME 8

Adams, E. Q. (see Jeffries, Z.)—48
Aiken, H. Trilinear coordinates—470
Albert, G. A. Dielectric loss measurements parallel to laminations—218
Albright, J. G. Lightning flash and its component strokes—313
American Society for Metals. Metals handbook—150 (book review)
Arnquist, W. N. Note on the filtering action of porous media—363
Atlee, Z. J. (see Gross, M. J.)—540

Baker, J. F. (see Pippard, A. J. S.)—414 (book review)
Barton, H. A. Physics in the production and use of bulk crops—639
——— Report of meeting of advisory council on applied physics—98
Beams, J. W. High rotational speeds—784
Benjamin, A. C. Logical structure of science—415 (book review)
Bergmann, L. Der ultraschall und seine anwendung in wissenschaft und technik—761 (book review)
Betz, P. I. and S. Karrer. Characteristic of the copper arc during the formative period—845
Birch, F. Effect of pressure on the modulus of rigidity of several metals and glasses—129
Blair, J. M. (see Jones, M. W.)—627
Bozorth, R. M. Directional ferromagnetic properties—575
Bradbury, N. E. Fundamental mechanisms in the ionosphere—709
Bragg, W. L. Atomic structure of minerals—489 (book review)
——— Electricity—71 (book review)
Braun, M. L. Effect of temperature on stretched rubber bands—138
Brewer, A. K. and J. W. Westhaver. Cathode region in the glow discharge—779
Bridgman, P. W. Flow phenomena in heavily stressed metals—328
Briggs, L. J. National Bureau of Standards—298
Buckley, O. E. Evolution of the crystal wave filter—40
Burchard, J. E. Building, the forgotten child of physics—10
Burns, R. M. Electrochemical techniques in corrosion study—398

Carr, P. H. (see Schickele, E.)—558
Champion, F. C. and N. Davy. Properties of matter—150 (book review)
Chiles, J. A., Jr. Photographic study of the vacuum spark discharge—622
Clark, G. L. and E. Wolthuis. Electron diffraction study of the effect of heat upon the structure of gold leaf—630
Clerc, L. P. IX^{e} congrès international de photographie—203, 413 (book review)
Cobine, J. D. and R. B. Power. Application of Paschen's law to the reignition of an arc—287
Colwell, R. C. and A. W. Friend. Daylight variation of signal strength—141
——— **and L. R. Hill.** Magnetostrictive oscillation of quartz plates—68
Coombs, C. E. and R. N. Traxler. Rheological properties of asphalts. IV. Observations concerning the anomalous flow characteristics of air-blown asphalts—291
Cope, H. W. Samuel Montgomery Kintner—117
Countryman, M. A. Notes on the wetting of filaments by molten metals—432
Cullimore, A. R. Edward Weston, a pioneer in instrument manufacturing—55
Curtis, H. L. Electrical measurements. Precise comparison of standards and absolute determination of the units—490 (book review)

Darrow, K. K. Renaissance of physics—71 (book review)
Davis, E. A. Plastic behavior of metals in the strain-hardening range. Part II—213
Davis, W. Uses of microfilm in documentation—816
Davisson, C. J. What electrons can tell us about metals—391
Davy, N. (see Champion, F. C.)—150 (book review)
Dellinger, J. H. Sudden disturbances of the ionosphere—732
Den Hartog, J. P. Book review—413
——— Vibration in industry—76
Dow, R. B. Effects of pressure and temperature on the viscosity of lubricating oils—367
Dow, W. G. Fundamentals of engineering electronics—617 (book review)
Dushman, S. Educating physicists for industry—59

Eddington, A. S. Relativity theory of protons and electrons—71 (book review)
Edgerton, H. E., J. K. Germeshausen and H. E. Grier. High speed photographic methods of measurement—2
Eldridge, J. A. Book review—616
Ellwood, W. B. and V. E. Legg. Study of magnetic losses at low flux densities in 35 permalloy sheet—351
Elting, J. P. Place of statistics in textile research—239
Eshbach, O. W. Handbook of engineering fundamentals—71 (book review)
Ewell, A. W. Physics in cold storage—530

Farr, W. K. Structure of the cotton fiber—228
Farwell, H. W. Double refraction in colloidal solutions—416
Feather, N. Introduction to nuclear physics—71 (book review)
Foote, P. D. Let the physicist change your oil!—19
——— Archer Hoyt, a biography—485
Forsythe, W. E. Physicist and the incandescent lamp—522
Fowler, R. H. Statistical mechanics. The theory of the properties of matter in equilibrium—150 (book review)
Frankenburger, W. Katalytische umsetzungen—415 (book review)
Frevel, L. K. Note on the indexing of powder photographs—553
Friend, A. W. (see Colwell, R. C.)—141
Furnas, C. C. Science more or less—511

Germeshausen, J. K. (see Edgerton, H. E.)—2
Greenwald, H. P. Physics of subsidence and ground movement in coal mines—462
Grier, H. E. (see Edgerton, H. E.)—2
Gross, M. J. and Z. J. Atlee. High voltage vacuum tube rectifiers—540
Gurney, R. W. Ions in solution—203 (book review)

Hahn, O. Applied radio-chemistry—150 (book review)
Hamor, W. A. (see Weidlein, E. R.)—203 (book review)
Hansen, M. Der aufbau der zweistofflegierungen—203 (book review)
Hansen, W. W. Transformations useful in certain antenna calculations—282
Hardy, A. C. Physical basis of color measurement—233
Harrison, G. R. Applied physicist—569
Henney, K. Electron tubes in industry—203 (book review)
Hersey, M. D. Theory of lubrication—202 (book review)
——— **and R. F. Hopkins.** Collected results on viscosity of lubricants under pressure. I. Fatty oils—560
——— **and J. C. Zimmer.** Heat effects in capillary flow at high rates of shear—359
Herzfeld, K. F. Liquid state—319, 482
Hickman, C. N. Book review—616
——— Dynamics of a bow and arrow—404
Hicks, V. Book review—489
Hill, C. F. Some problems of physics in the application of dielectrics as insulators—607
Hill, L. R. (see Colwell, R. C.)—68
Hirst, A. W. Electricity and magnetism—692 (book review)
Hopkins, R. F. (see Hersey, M. D.)—560
Houwink, R. Elasticity, plasticity and structure of matter—760 (book review)
Hutchisson, E. Applied physics—75
——— Let us go forward—1
——— Metallurgical physics—151
——— Opportunities in applied physics—297
——— Physics in the textile industry—227

Jeffries, Z. Alloys for tools and wear resistance—380
——— **and E. Q. Adams.** Phyics in the metal industry—48
Johnson, R. P. (see Seitz, F.)—84, 186, 246
Jones, A. T. Sound—616 (book review)
Jones, H. (see Mott, N. F.)—150 (book review)
Jones, M. W. and J. M. Blair. Concerning the cutting of glass—627

Kaempffert, W. Science, invention and society—449
Karrer, S. (see Betz, P. I.)—845
Keenan, J. H. and F. G. Keyes. Thermodynamic properties of steam—150 (book review)
Kent, R. H. Special solutions for the motion of the powder gas (comments on Mr. Pidduck's note)—144
Kersten, H. and W. T. Young. Electrical conductivity of nickel-sulphur electrodeposits—133
Keyes, F. G. (see Keenan, J. H.)—150 (book review)
Kilgore, G. R. Magnetron as a high frequency generator—666
Killeffer, D. H. Industry of solid carbon dioxide—589
Kinzel, A. B. Minute nonferritic particles in steel—341
Klemm, W. Magnetochemie—349 (book review)

Landè, A. Principles of quantum mechanics—692 (book review)
Lane, A. C. Report of the committee on the measurement of geologic time—150 (book review)
Lane, C. T. Temperature dependence of diamagnetism in gamma-brasses—693
Larmor, J. Origins of Clerk Maxwell's electric ideas as described in familiar letters to William Thomson—617 (book review)
Lapp, C. J. Book review—761
Legg, V. E. (see Ellwood, W. B.)—351
Loeb, L. B. Fundamental mechanisms which determine the starting potentials of the low pressure corona discharge—495

MacDougall, F. H. Physical chemistry—349 (book review)
Marks, L. S. Albert Sauveur, a biography—160
Martin, J. R. Book review—551
Mason, R. C. (see Slepian, J.)—619
McArthur, E. D. Electronics and electron tubes—203 (book review)
McNish, A. G. Terrestrial magnetic variations and the ionosphere—718
Mehl, R. F. Rates of diffusion in solid alloys—174
Meller, H. B. and F. F. Rupert. Physics in air hygiene—473
Melson, E. W. Edward Bausch, a biography—337
Mendenhall, H. E. Book review—617
Michener, W. H. Book review—617
Miller, D. C. Sound waves, their shape and speed—617 (book review)
Millikan, C. B. Physicist gets air minded—107
Moeller, F. Electrotechnische berichte—350 (book review)
Moon, P. Scientific basis of illuminating engineering—551 (book review)
Mott, N. F. and H. Jones. Theory of the properties of metals and alloys—150 (book review)
Muskat, M. Book review—202
——— Flow of fluids through porous media—274
——— Note on a problem in potential theory—434

Nadai, A. On the creep of solids at elevated temperature—418
——— Plastic behavior of metals in the strain-hardening range. Part I—205
Nassau, J. J. Ambrose Swasey, a biography—595
Nix, F. C. Superstructures in alloy systems—796
——— Book review—349
Norton, J. T. Uses and limitations of x-ray diffraction methods—307
Nottingham, W. B. Electrical and luminescent properties of willemite under electron bombardment—762

Page, L. Book review—490
Palm, A. Elektrische messgeräte und messeinrichtungen—692 (book review)
Palmer, L. S. Wireless engineering—551 (book review)
Patterson, R. A. Book review—760
Perrin, F. H. Book review—413
Pidduck, F. B. Limiting properties of internal ballistics—144
Pippard, A. J. S. and J. F. Baker. Analysis of engineering structures—414 (book review)
Pittman, C. U. (see Traxler, R. N.)—70
Porter, B. H. Impregnation studies with colloidal graphite—479
Power, R. B. (see Cobine, J. D.)—287

Race, H. H. Book review—491
Ramsey, A. S. Dynamics, Part II—413 (book review)
——— Electricity and magnetism. An introduction to the mathematical theory—490 (book review)
Rhodes, E. O. and E. W. Volkmann. Use of the A. S. T. M. penetration equipment for estimating the viscosities of materials of high consistency—492
Richardson, R. S. Nature of bright chromospheric eruptions—752
Robinson, D. M. Dielectric phenomena in high voltage cables—415, 491 (book review)
Rupert, F. F. (see Meller, H. B.)—473
Rutherford, Lord. Newer alchemy—616 (book review)

Samson, E. W. Physics in the paper industry—455
Samuel, A. L. Extending the frequency range of the negative grid tube—677
Sarsfield, L. G. H. Electrical engineering in radiology—413 (book review)
Sarnoff, D. Science and society—373
Sawyer, R. A. (see Vincent, H. B.)—163
Schickele, E. and P. H. Carr. Notes on the electrographic effect—558
Schwarz, E. R. Textile research at the Massachusetts Institute of Technology—544
Schweitzer, P. H. Mechanism of disintegration of liquid jets—513
Seemann, H. E. Some physical and radiographic properties of metallic intensifying screens—836
Seitz, F. and R. P. Johnson. Modern theory of solids I—84; II—186; III—246
Shrader, J. E. Physics for students of applied science—760 (book review)
Slater, J. C. Electronic structure of alloys—385
Slepian, J. Some physical problems in the electrical power industry—152
——— **and R. C. Mason.** Experimental validity of Paschen's law and of a similar relation for the re-ignition potential of an alternating current arc—619
Smallwood, H. M. Viscosity of raw rubber—505
Smart, W. M. Textbook on spherical astronomy—150 (book review)
Smith, L. P. Heat flow in an infinite solid bounded internally by a cylinder—441
Somers, F. J. Book review—490
Southworth, G. C. New experimental methods applicable to ultra-short waves—660
Sullivan, E. C. Accomplishments of the industrial physicist in the glass industry—122

Taschek, R. (see Williams, D.)—497
Taylor, E. A. Controlled reading. A correlation of diagnostic, teaching, and corrective techniques—489 (book review)
Thelen, E. Method for measuring the rheological properties of materials of great consistency such as asphalts—135
Timoshenko, S. Book review—414
Traxler, R. N. (see Coombs, C. E.)—291
——— **and C. U. Pittman.** Penetration-viscosity relationship for asphaltic bitumens—70
Trump, J. G. Book review—413
——— **and R. J. Van de Graaf.** Design of a million volt x-ray generator for cancer treatment and research—602

Valasek, J. Book reviews—489, 551
Van de Graaf, R. J. (see Trump, J. G.)—602
Van Dyke, K. S. Note on a peculiar case of fracture of a quartz resonator—567
Venkateswaran, C. S. On vibrations produced during machining on lathes—698
Vilbig, F. Lehrbuch der hochfrequenztechnik—415 (book review)
Vincent, H. B. and R. A. Sawyer. Spectrograph in the iron foundry for rapid and accurate control analysis—163
Volkmann, E. W. (see Rhodes, E. O.)—492
von Ardenne, M. Television reception—490 (book review)
von Hippel, A. Electric breakdown of solid and liquid insulators—820

Walker, A. C. Moisture in textiles—261
Warren, B. E. X-ray determination of the structure of liquids and glass—645
Weidlein, E. R. and W. A. Hamor. Glances at industrial research—203 (book review)
Westhaver, J. W. (see Brewer, A. K.)—779
Williams, D. and R. Taschek. Effects of elastic stretch on the infrared spectrum of rubber—497
Williams, N. H. Production and absorption of electromagnetic waves from 3 cm to 6 mm in length—655

Williamson, C. Book review—203
Willett, H. C. Importance of observation from the upper atmosphere in long range weather forecasting—808
Wilson, A. H. Theory of metals—203 (book review)
Winans, J. G. Book review—617
Wold, P. I. Kimball's college textbook of physics (review) —761
Wolthuis, E. (see Clark, G. L.)—630
Young, L. A. Book review—692
Young, W. T. (see Kersten, H.)—133
Zeleny, A. Book review—490
Zimmer, J. C. (see Hersey, M. D.)—359
Zwicky, F. Book review—760

SUBJECT INDEX TO VOLUME 8

Absorption of electromagnetic waves from 3 cm to 6 mm in length, N. H. Williams—655
Air hygiene, Physics of, H. B. Meller and F. F. Rupert—473
Air minded, Physicist gets, C. B. Millikan—107
Alloy systems, Superstructure in, F. C. Nix—783
Alloys, Diffusion in solid, R. F. Mehl—174
Alloys, Electronic structure of, J. C. Slater—385
Alloys for tools and wear resistance, Z. Jeffries—380
Analysis of engineering structures, A. J. S. Pippard and J. F. Baker (review)—414
Antenna calculations, Transformations useful in certain, W. W. Hansen—282
Applied physicist, G. R. Harrison—569
Applied physics, E. Hutchisson—75
Applied physics, Opportunities in, E. Hutchisson—297
Applied physics, Report of meeting of advisory council on, H. A. Barton—98
Applied radio-chemistry, O. Hahn (review)—150
Arc, Application of Paschen's law to the re-ignition of, J. D. Cobine and R. B. Power—287
Arc, Characteristics during the formative period, P. Betz and S. Karrer—845
Arc, Experimental validity of Paschen's law and of a similar relation for the re-ignition potential of an alternating current, J. Slepian and R. C. Mason—619
Asphaltic bitumens, Penetration-viscosity relationship for, R. N. Traxler and C. U. Pittman—70
Asphalts, Rheological properties of materials of great consistency as, E. Thelen—135
Asphalts IV, Rheological properties of, C. E. Coombs and R. N. Traxler—291
Atmosphere, upper, Importance of observations in long range weather forecasting, H. C. Willett—807
Atomic structure of minerals, W. L. Bragg (review)—489

Ballistics, Limiting problem of internal, F. B. Pidduck—144
Bausch, Edward, a biography, E. W. Melson—337
Bow and arrow, Dynamics of, C. N. Hickman—404
Building, the forgotten child of physics, J. E. Burchard—10

Cancer treatment and research, Million volt x-ray generator for, J. G. Trump and R. J. Van de Graaf—602
Capillary flow at high rates of shear, Heat effects in, M. D. Hersey and J. C. Zimmer—359
Carbon dioxide, Industry of, D. H. Killeffer—589
Cathode region in the glow discharge, A. K. Brewer and J. W. Westhaver—779
Chromospheric eruptions, R. S. Richardson—752
Coal mines, Physics of subsidence and ground movement in, H. P. Greenwald—462
Cold storage, Physics in, A. W. Ewell—530
Colloidal solutions, Double refraction in, H. W. Farwell—416
Color measurement, Physical basis of, A. C. Hardy—233
Conductivity of nickel-sulphur electrodeposits, H. Kersten and W. T. Young—133
Controlled reading. A correlation of diagnostic, teaching, and corrective techniques, E. A. Taylor (review)—489
Coordinates, Trilinear, H. Aiken—470
Corrosion study, Electrochemical techniques in, R. M. Burns—398
Cotton fiber, Structure of the, W. K. Farr—228
Creep of solids at elevated temperature, A. Nadai—418
Crops, Physics in the production and use of bulk, H. A. Barton—639
Crystal wave filter, Evolution of the, O. E. Buckley—40
Cutting of glass, Concerning the, M. W. Jones and J. M. Blair—627

Daylight variation of signal strength, R. C. Colwell and A. W. Friend—141
Der aufbau der zweistofflegierungen, M. Hansen (review) —203
Diamagnetism in gamma-brasses, Temperature dependence of, C. T. Lane—693
Dielectric loss measurements parallel to laminations, G. A. Albert—218
Dielectric phenomena in high voltage cables, D. M. Robinson (review)—491
Dielectrics as insulators, Physics in the application of, C. F. Hill—607
Diffusion in solid alloys, R. F. Mehl—174
Directional ferromagnetic properties, R. M. Bozorth—575
Discharge, Cathode region in the glow, A. K. Brewer and J. W. Westhaver—779
Discharge, Mechanisms which determine the starting potentials of the low pressure corona, L. B. Loeb—495

Discharge, Photographic study of the vacuum spark, J. A. Chiles, Jr.—622
Double refraction in colloidal solutions, H. W. Farwell—416
Dynamics of a bow and arrow, C. N. Hickman—404
Dynamics, Part II, A. S. Ramsey (review)—413

Educating physicists for industry, S. Dushman—59
Elasticity, plasticity and structure of matter, R. Houwink (review)—760
Electric breakdown of solid and liquid-insulators, A. von Hippel—820
Electrical engineering in radiology, L. G. H. Sarsfield (review)—413
Electrical and luminescent properties of willemite under electron bombardment, W. B. Nottingham—762
Electrical measurements. Precise comparison of standards and absolute determination of the units, H. L. Curtis (review)—490
Electrical power industry, J. Slepian—152
Electricity, W. L. Bragg (review)—71
Electricity and magnetism, A. W. Hirst (review)—692
Electricity and magnetism. An introduction to the mathematical theory, A. S. Ramsey (review)—490
Elektrische messgeräte und messeinrichtungen, A. Palm (review)—692
Electrochemical techniques in corrosion study, R. M. Burns—398
Electrodeposits, Conductivity of nickel-sulphur, H. Kersten and W. T. Young—133
Electrographic effect, E. Schickele and P. H. Carr—558
Electromagnetic waves from 3 cm to 6 mm in length, Absorption of, N. H. Williams—655
Electron bombardment, Electrical and luminescent properties of willemite under, W. B. Nottingham—762
Electron diffraction study of the effect of heat upon the structure of gold leaf, G. L. Clark and E. Wolthuis—630
Electronic structure of alloys, J. C. Slater—385
Electron tubes in industry, K. Henney (review)—203
Electrons can tell us about metals, C. J. Davisson—391
Electronics and electron tubes, E. D. McArthur (review)—203
Electrotechnische berichte, edited by F. Moeller (review)—350
Eruptions, Chromospheric, R. S. Richardson—752

Ferromagnetic properties, Directional, R. M. Bozorth—575
Filter, Evolution of the use of crystal wave, O. E. Buckley—40
Filtering action of porous media, W. N. Arnquist—363
Flow of fluids through porous media, M. Muskat—274
Flow phenomena in heavily stressed metals, P. W. Bridgman—328
Frequency range of the negative grid tube, A. L. Samuel—677
Fundamentals of engineering electronics, W. G. Dow (review)—617

General Electric Company, Laboratory of the—34
Glances at industrial research, E. R. Weidlein and W. A. Hamor (review)—203
Glass, Concerning the cutting of, M. W. Jones and J. M. Blair—627
Glass industry, Physicist in the, E. C. Sullivan—122
Glasses, Pressure on the modulus of rigidity of several metals and, F. Birch—129
Glass, X-ray determination of the structure of liquids and, B. E. Warren—645
Gold leaf, Electron diffraction study of the effect of heat upon the structure of, G. L. Clark and E. Wolthuis—630
Graphite, Impregnation studies with colloidal, B. H. Porter—479
Ground movement in coal mines, Physics of subsidence and, H. P. Greenwald—462

Handbook of engineering fundamentals, edited by O. W. Eshbach (review)—71
Heat effects in capillary flow at high rates of shear, M. D. Hersey and J. C. Zimmer—359
Heat flow in an infinite solid bounded internally by a cylinder, L. P. Smith—441
Heat upon the structure of gold leaf, Electron diffraction study of the effect of, G. L. Clark and E. Wolthuis—630
High frequency generator, Magnetron as a, G. R. Kilgore—666
High rotational speeds, J. W. Beams—795
High speed photographic methods of measurement, H. E. Edgerton, J. K. Germeshausen and H. E. Grier—2
High voltage vacuum tube rectifiers, M. J. Gross and Z. J. Atlee—540
Hoyt, Archer, biography, P. D. Foote—485

Impregnation studies with colloidal graphite, B. H. Porter—479
Incandescent lamp, Physicist and the, W. E. Forsythe—522
Indexing of powder photographs, L. K. Frevel—553
Industry of solid carbon dioxide, D. H. Killeffer—589
Industry, Vibration in, J. P. Den Hartog—76
Infrared spectrum of rubber, D. Williams and R. Taschek—497
Insulators, Electric breakdown of solid and liquid, A. von Hippel—815
Insulators, Physics in the application of dielectrics as, C. F. Hill—607
Intensifying screens, Some physical and radiographic properties of metallic, H. E. Seemann—836
Introduction to nuclear physics, N. Feather (review)—71
Ionosphere, Mechanisms in the, N. E. Bradbury—709
Ionosphere, Sudden disturbances of, J. H. Dellinger—732
Ionosphere, Terrestrial magnetic variations and, A. G. McNish—718
Ions in solution, R. W. Gurney (review)—203
Iron foundry, Spectrograph in the, H. B. Vincent and R. A. Sawyer—163
IX^{e} congrès international de photographie, L. P. Clerc (review)—203, 413

Katalytische umsetzungen, W. Frankenburger (review)—415

Kimball's college textbook of physics, P. I. Wold (reveiw)—761
Kintner, Samuel Montgomery, H. W. Cope—117

Laboratory of the General Electric Company—34
Laboratory of the Mellon Institute of Industrial Research—536
Lehrbuch der hochfrequenztechnik, F. Vilbig (review)—415
Let the physicist change your oil! P. D. Foote—19
Let us go forward, E. Hutchisson—1
Lightning flash and its component strokes, J. G. Albright—313
Liquids and glass, X-ray determination of the structure of, B. E. Warren—645
Liquid jets, Mechanism of disintegration of, P. H. Schweitzer—513
Liquid state, K. F. Herzfeld—319, 482
Logical structure of science, A. C. Benjamin (review)—415
Lubricants under pressure. I, Viscosity of, M. D. Hersey and R. F. Hopkins—560
Lubricating oils, Effects of pressure and temperature on the viscosity of, R. B. Dow—367
Luminescent properties of willemite under electron bombardment, Electrical and, W. B. Nottingham—762

Machining on lathes, Vibrations produced during, C. S. Venkateswaran—698
Magnetic losses at low flux densities in 35 permalloy sheet, W. B. Ellwood and V. E. Legg—351
Magnetic variations and the ionosphere, A. G. McNish—718
Magnetochemie, W. Klemm (review)—349
Magnetostrictive oscillation of quartz plates, R. C. Colwell and L. R. Hill—68
Magnetron as a high frequency generator, G. R. Kilgore—666
Mechanisms in the ionosphere, N. E. Bradbury—709
Mechanisms of disintegration of liquid jets, P. H. Schweitzer—513
Mechanisms which determine the starting potentials of the low pressure corona discharge, L. B. Loeb—495
Mellon Institute of Industrial Research, Laboratory of the—536
Metal industry, Physics in the, Z. Jeffries and E. Q. Adams—48
Metallurgical physics, E. Hutchisson—151
Metals, Flow phenomena in heavily stressed, P. W. Bridgman—328
Metals handbook, American Society for Metals—150
Metals and glasses, Pressure on the modulus of rigidity of several, F. Birch—129
Metals, What electrons can tell us about, C. J. Davisson—391
Million volt x-ray generator for cancer treatment and research, J. G. Trump and R. J. Van de Graaf—602
Minute nonferritic particles in steel, A. B. Kinzel—341
Moisture in textiles, A. C. Walker—261
Modern theory of solids, F. Seitz and R. P. Johnson, I—84; II—186; III—246

National Bureau of Standards, L. J. Briggs—298
Negative grid tube, Frequency range of the, A. L. Samuel—677
Newer alchemy, Lord Rutherford (review)—616

Oil, Let the physicist change your, P. D. Foote—19
Origins of Clerk Maxwell's electric ideas as described in familiar letters to William Thomson, edited by Sir J. Larmor (review)—617

Paper industry, Physics in the, E. W. Samson—455
Paschen's law and a similar relation for the re-ignition potential of an alternating current arc, J. Slepian and R. C. Mason—619
Paschen's law to the re-ignition of an arc, Application of, J. D. Cobine and R. B. Power—287
Penetration equipment for estimating the viscosities of materials of high consistency, E. O. Rhodes and E. W. Volkmann—492
Penetration-viscosity relationship for asphaltic bitumens, R. N. Traxler and C. U. Pittman—70
Permalloy sheet, Study of magnetic losses at low flux densities in 35, W. B. Ellwood and V. E. Legg—351
Photographic methods of measurement, High speed, H. E. Edgerton, J. K. Germeshausen and H. E. Grier—2
Photographic study of the vacuum spark discharge, J. A. Chiles, Jr.—622
Physical basis of color measurement, A. C. Hardy—233
Physical chemistry, F. H. MacDougall (review)—349
Physicist and the incandescent lamp, W. E. Frosythe—522
Physicist, applied, G. R. Harrison—569
Physicist change your oil, Let the, P. D. Foote—19
Physicist gets air minded, C. B. Millikan—107
Physicist in the glass industry, E. C. Sullivan—122
Physicists for industry, Educating, S. Dushman—59
Physics of air hygiene, H. B. Meller and F. F. Rupert—473
Physics in the application of dielectrics as insulators, C. F. Hill—607
Physics in cold storage, A. W. Ewell—530
Physics in the metal industry, Z. Jeffries and E. Q. Adams—48
Physics in the paper industry, E. W. Samson—455
Physics in the production and use of bulk crops, H. A. Barton—639
Physics for students of applied science, J. E. Shrader (review)—760
Physics of subsidence and ground movement in coal mines, H. P. Greenwald—462
Physics in the textile industry, E. Hutchisson—227
Plastic behavior of metals in the strain-hardening range. I, A. Nadai—205
Plastic behavior of metals in the strain-hardening range. II, E. A. Davis—213
Porous media, Filtering action of, W. N. Arnquist—363
Porous media, Flow of fluids through, M. Muskat—274
Potential theory, M. Muskat—434
Powder gas, Special solutions for the motion of (comment on Mr. Pidduck's note), R. H. Kent—144
Powder photographs, Indexing of, L. K. Frevel—553

Pressure on the modulus of rigidity of several metals and glasses, F. Birch—129
Principles of quantum mechanics, A. Landè (review)—692
Properties of matter, F. C. Champion and N. Davy (review)—150

Quartz resonator, K. S. Van Dyke—567

Radiographic properties of metallic intensifying screens, Some physical and, H. E. Seemann—836
Rectifiers, High voltage vacuum tube, M. J. Gross and Z. J. Atlee—540
Re-ignition potential of an alternating current arc, Experimental validity of Paschen's law and of a similar relation for the, J. Slepian and R. C. Mason—619
Relativity theory of protons and electrons, A. S. Eddington (review)—71
Renaissance of physics, K. K. Darrow (review)—71
Report of the committee on the measurement of geologic time, A. C. Lane (review)—150
Resonator, Quartz, K. S. Van Dyke—567
Rheological properties of asphalts IV, C. E. Coombs and R. N. Traxler—291
Rheological properties of materials of great consistency such as asphalts, E. Thelen—135
Rubber bands, Effect of temperature on stretched, M. L. Braun—138
Rubber, Infrared spectrum of, D. Williams and R. Taschek —497
Rubber, Viscosity of raw, H. M. Smallwood—505

Sauveur, Albert, a biography, L. S. Marks—160
Science, invention and society, W. Kaempffert—449
Science more or less, C. C. Furnas—511
Science and society, D. Sarnoff—373
Scientific basis of illuminating engineering, P. Moon (review)—551
Signal strength, Daylight variation of, R. C. Colwell and A. W. Friend—141
Solids at elevated temperature, Creep of, A. Nadai—418
Solids, Modern theory of, F. Seitz and R. P. Johnson, I—84; II—186; III—246
Sound, A. T. Jones (review)—616
Sound waves, their shape and speed, D. C. Miller (review) —617
Spark discharge, Photographic study of the vacuum, J. A. Chiles, Jr.—622
Spectrograph in the iron foundry, H. B. Vincent and R. A. Sawyer—163
Starting potentials of the low pressure corona discharge, Mechanisms which determine the, L. B. Loeb—495
Statistical mechanics. The theory of the properties of matter in equilibrium, R. H. Fowler (review)—150
Statistics in textile research, J. P. Elting—239
Steel, Minute nonferritic particles in, A. B. Kinzel—341
Strain-hardening range. I, Plastic behavior of metals in the, A. Nadai—205
Strain-hardening range. II, Plastic behavior of metals in the, E. A. Davis—213
Structure of the cotton fiber, W. K. Farr—228
Sudden disturbances of the ionosphere, J. H. Dellinger—732
Superstructure in alloy systems, F. C. Nix—796
Swasey, Ambrose, a biography, J. J. Nassau—595

Television reception, M. von Ardenne (review)—490
Temperature dependence of diamagnetism in gamma-brasses, C. T. Lane—693
Terrestrial magnetic variations and the ionosphere, A. G. McNish—718
Textbook on spherical astronomy, W. M. Smart (review)—150
Textiles, Moisture in, A. C. Walker—261
Textile research at the Massachusetts Institute of Technology, E. R. Schwarz—544
Textile research, Statistics in, J. P. Elting—239
Theory of lubrication, M. D. Hersey (review)—202
Theory of metals, A. H. Wilson (review)—203
Theory of the properties of metals and alloys, N. F. Mott and H. Jones (review)—150
Thermodynamic properties of steam, J. H. Keenan and F. G. Keyes (review)—150
Transformations useful in certain antenna calculations, W. W. Hansen—282
Trilinear coordinates, H. Aiken—470

Ultra-short waves, G. C. Southworth—660

Vibration in industry, J. P. Den Hartog—76
Vibrations produced during machining on lathes, C. S. Venkateswaran—698
Viscosity of lubricants under pressure. I. Fatty oils, M. D. Hersey and R. F. Hopkins—560
Viscosity of lubricating oils, Effects of pressure and temperature on, R. B. Dow—367
Viscosities of materials of high consistency, Penetration equipment for estimating the, E. O. Rhodes and E. W. Volkmann—492
Viscosity of raw rubber, H. M. Smallwood—505
Viscosity relationship for asphaltic bitumens, Penetration, R. N. Traxler and C. U. Pittman—70

Waves, Experimental methods applicable to ultra-short, G. C. Southworth—660
Wave filter, Evolution of the crystal, O. E. Buckley—40
Weather forecasting, long range, Importance of observations from the upper atmosphere, H. C. Willett—807
Weston, Edward, Pioneer in instrument manufacturing, A. R. Cullimore—55
Wetting of filaments by molten metals, M. A. Countryman —432
Wireless engineering, L. S. Palmer (review)—551

X-ray determination of the structure of liquids and glass, B. E. Warren—645
X-ray diffraction methods, J. T. Norton—307
X-ray generator for cancer treatment and research, Million volt, J. G. Trump and R. J. Van de Graaf—602